

### REMARKS

Claims 1-19 are pending, with claims 1-4, 12, and 13 being independent. Claims 1-16 have been amended and claims 17-19 have been added. Support for the amendments can be found in the originally-filed specification, at least at page 11, line 1 to page 12, line 20 and Figs 2A-3E; and support for the new claims can be found in the originally-filed specification, at least at page 20, line 25 to page 21, line 18. No new matter has been added.

Claims 1-16 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2003/0228740 (Nagai). Applicant requests withdrawal of this rejection for the following reasons.

Independent claim 1, as amended, recites a method for removing a resist pattern of a positive resist composition containing a photosensitizer, where the resist pattern is formed over a metal film that is formed over a substrate. The method includes, among other features, irradiating the resist pattern with a light having a photosensitive wavelength region of the photosensitizer after etching the metal film, which is formed over a substrate. Nagai fails to describe or suggest irradiating a resist pattern with a light after etching a metal film, as recited in claim 1.

Nagai relates to a method of fabricating a semiconductor device that includes forming a gate insulating film 203a over a silicon film 202 that is formed over a substrate 201. See Nagai at paragraph 0066 and Fig. 2A. The method also includes forming a first gate electrode film 204a over the gate insulating film 203a, forming a second gate electrode film 205a over the first gate electrode film 204a, and then forming a resist pattern 206a over the second gate electrode film 205a. See Nagai at paragraph 0066, 0067 and Fig. 2A. Nagai's method then includes irradiating the resist pattern 206a "with light of wavelength between 350 nm and 450 nm." See Nagai at paragraph 0069 and Fig. 2B. Next, after the resist pattern 206a is irradiated, the second gate electrode film 205a is taper etched using the resist pattern 206b as a mask to form a second gate electrode film 205b. See Nagai at paragraph 0071 and Fig. 2C. Then, after the taper etching of the second gate electrode film 205a is completed, the first gate electrode film 204b is anisotropically etched using the second gate electrode film 205b as a mask to form a first gate

electrode 204c. See Nagai at paragraph 0072 and Fig. 2D. Lastly, after the first gate electrode 204c is formed, the second gate electrode 205c is anisotropically etched using the resist pattern 206d as a mask to form a second gate electrode film 205d. See Nagai at paragraph 0073 and Fig. 2E.

Thus, while Nagai describes irradiating the resist pattern 206b at an early stage of the method described in Figs 2A-2E, Nagai never describes or suggests that irradiation of the resist pattern 206b occurs after etching of the gate electrode films. Rather, in Nagai, irradiation of the resist pattern 206b occurs before etching of the gate electrode films, as described in detail above. For at least this reason, claim 1 is allowable over Nagai, as is claim 5, which depends from claim 1.

Independent claim 2, as amended, recites a method for removing a resist pattern of a positive resist composition containing a photosensitizer, where the resist pattern is formed over a metal film that is formed over a substrate. The method includes, among other features, irradiating an unprocessed portion of the resist pattern with a light having a photosensitive wavelength region of the photosensitizer after removing the resist pattern. Nagai fails to describe or suggest irradiating a resist pattern with a light after removing the resist pattern, as recited in claim 2.

In Nagai, the resist pattern is irradiated before any of the resist pattern 206a is removed. In particular, the resist pattern 206a is removed during and after the etching processes described in Figs. 2C-2E. See paragraphs 0071-0073 and Figs. 2C-2E. However, Nagai never suggests irradiation of the resist pattern 206a after the etching processes. For at least this reason, claim 2 is allowable over Nagai, as are claims 6 and 9, which depend from claim 2.

Independent claim 3, as amended, recites a method for manufacturing a semiconductor device including forming a resist pattern of a positive resist composition containing a photosensitizer, where the resist pattern is formed over a metal film that is formed over a substrate. The method includes, among other features, irradiating the resist pattern with a light having a photosensitive wavelength region of the photosensitizer after etching the metal film.

For the reasons discussed above with respect to claim 1, Nagai fails to describe or suggest irradiating a resist pattern with a light after etching a metal film, as also recited in claim 3.

Accordingly, claim 3 is allowable over Nagai, as are claims 7 and 10, which depend from claim 3.

Independent claim 4, as amended, recites a method for manufacturing a semiconductor device including forming a resist pattern of a positive resist composition containing a photosensitizer, where the resist pattern is formed over a metal film that is formed over a substrate. The method includes, among other features, irradiating an unprocessed portion of the resist pattern with a light having a photosensitive wavelength region of the photosensitizer after removing the resist pattern.

For the reasons discussed above with respect to claim 2, Nagai fails to describe or suggest irradiating an unprocessed portion of the resist pattern with a light having a photosensitive wavelength region of the photosensitizer after removing the resist pattern., as also recited in claim 4. Accordingly, claim 4 is allowable over Nagai, as are claims 8 and 11, which depend from claim 4.

Independent claim 12, as amended, recites a method for manufacturing a semiconductor device including forming a resist pattern of a positive resist composition containing a photosensitizer over a second-layer gate electrode film. The method includes, among other features, irradiating the resist pattern with light within a range of photosensitive wavelengths of the photosensitizer after a first, a second, and a third dry etching processing.

As discussed above, in Nagai, the etching processing that forms the first gate electrode 204d and the second gate electrode 205d is performed after the resist pattern 206a is irradiated with light and no additional irradiation of the resist pattern 206a occurs after the etching processing. Therefore, Nagai fails to describe or suggest irradiating the resist pattern with light within a range of photosensitive wavelengths of the photosensitizer after a first, a second, and a third dry etching processing, as recited in claim 12. Accordingly, claim 12 is allowable over Nagai.

Independent claim 13, as amended, recites a method for manufacturing a semiconductor device including forming a resist pattern of a positive resist composition containing a photosensitizer over a gate electrode film. The method includes, among other features,

irradiating the resist pattern with a light having a photosensitive wavelength region of the photosensitizer after etching the gate electrode film.

Nagai fails to describe or suggest irradiating a resist pattern with a light after etching a gate electrode film, as recited in independent claim 13. As discussed above with respect to claim 1, while Nagai describes irradiating the resist pattern 206b at an early stage of the method described in Figs 2A-2E, Nagai never describes or suggests that irradiation of the resist pattern 206b occurs after etching of the gate electrode films. Rather, in Nagai, irradiation of the resist pattern 206b occurs before etching of the gate electrode films, as described in detail above. For at least this reason, claim 13 is allowable over Nagai, as are claims 14-16, which depend from claim 13.

New claims 17-19 depend from claims 3, 4, and 12, respectively, and are allowable for at least the reasons that claims 3, 4, and 12 are allowable. Accordingly, applicant requests consideration and allowance of claims 17-19.

Enclosed is a check for a two-month extension of time. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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